

SEQUENCE LISTING

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<120> METHODS AND COMPOUNDS FOR MODULATING NUCLEAR RECEPTOR  
COACTIVATOR BINDING

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<151> 1998-03-30

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<170> PatentIn Ver. 2.1

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<223> Xaa = Any Amino Acid

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Leu Xaa Xaa Leu Leu  
1 5

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Ile Leu Xaa Xaa Leu Leu

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Phe Xaa Xaa Leu Trp

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Phe Xaa Xaa Ala Leu

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Ala Glu Gly His Ser Arg Leu His Asp Ser Lys Gly Gln Thr Lys Leu

1

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Leu Gln Leu Leu Thr Thr Lys Ser Glu Gln Met Glu Pro Ser Pro Leu

Ala Ser

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<222> (15)  
<223> Ile --> Ala

<220>  
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<222> (16)  
<223> Leu --> Ala

<220>  
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<222> (19)  
<223> Leu --> Ala

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<222> (20)  
<223> Leu --> Ala

<220>  
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<222> (16)..(20)  
<223> Leu(16) --> Ala; Leu(20) --> Ala

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<222> (15)..(16)  
<223> LeuLeu --> AlaAla

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<222> (17)..(18)  
<223> HisArg --> AlaAla

<220>  
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<222> (19)..(20)  
<223> LeuLeu --> AlaAla

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<222> (15)  
<223> Ile --> Phe

<220>  
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<223> Leu --> Phe

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<223> Leu --> Phe

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<222> (20)  
<223> Leu --> Phe

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Pro Gly Ser Thr His Gly Thr Ser Leu Lys Glu Lys His Lys Ile Leu  
1 5 10 15

His Arg Leu Leu Gln Asp Ser Ser Ser Pro Val Asp Leu Ala Lys Leu  
20 25 30

Thr Ala

<210> 7  
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<213> Homo sapiens

<400> 7  
Glu Pro Ala Ser Pro Lys Lys Lys Glu Asn Ala Leu Leu Arg Tyr Leu  
1 5 10 15

Leu Asp Lys Asp Asp Thr Lys Asp Ile Gly Leu Pro Glu Ile Thr  
20 25 30

<210> 8

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<213> Homo sapiens

<400> 8  
Ala Asp Gly Gln Ser Arg Leu His Asp Ser Lys Gly Gln Thr Lys Leu  
1 5 10 15  
  
Leu Gln Leu Leu Thr Thr Lys Ser Glu Gln Met Glu Pro Ser Pro Leu  
20 25 30

Ala Ser

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Ser Gly Ser Thr His Gly Thr Ser Leu Lys Glu Lys His Lys Ile Leu  
1 5 10 15  
  
His Arg Leu Leu Gln Asp Ser Ser Ser Pro Val Asp Leu Ala Lys Leu  
20 25 30

Thr Ala

<210> 10  
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<400> 10  
Glu Pro Val Ser Pro Lys Lys Glu Asn Ala Leu Leu Arg Tyr Leu  
1 5 10 15  
  
Leu Asp Lys Asp Asp Thr Lys Asp Ile Gly Leu Pro Glu Ile Thr  
20 25 30

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<400> 11

Ala Glu Gly His Ser Arg Leu His Asp Ser Lys Gly Gln Thr Lys Leu  
1 5 10 15

Leu Gln Leu Leu Thr Thr Lys Ser Glu Gln Met Glu Pro Ser Pro Leu  
20 25 30

Pro Ser

<210> 12

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<213> Homo sapiens

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Pro Gly Ser Thr His Gly Thr Ser Leu Lys Glu Lys His Lys Ile Leu  
1 5 10 15

His Arg Leu Leu Gln Asp Ser Ser Ser Pro Val Asp Leu Ala Lys Leu  
20 25 30

Thr Ala

<210> 13

<211> 31

<212> PRT

<213> Homo sapiens

<400> 13

Glu Pro Ala Ser Pro Lys Lys Lys Glu Asn Ala Leu Leu Arg Tyr Leu  
1 5 10 15

Leu Asp Lys Asp Asp Thr Lys Asp Ile Gly Leu Pro Ser Ile Thr  
20 25 30

<210> 14

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<213> Homo sapiens

<400> 14

Ala Glu Asn Gln Arg Gly Pro Leu Glu Ser Lys Gly His Lys Lys Leu

1

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Leu Gln Leu Leu Thr Cys Ser Ser Glu Asp Arg Gly His Ser Ser Leu  
20 25 30

Thr Asn

<210> 15

<211> 34

<212> PRT

<213> Homo sapiens

<400> 15

Thr Ser Asn Met His Gly Ser Leu Leu Gln Glu Lys His Arg Ile Leu  
1 5 10 15

His Lys Leu Leu Gln Asn Gly Asn Ser Pro Ala Glu Val Ala Lys Ile  
20 25 30

Thr Ala

<210> 16

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<212> PRT

<213> Homo sapiens

<400> 16

Glu Gln Leu Ser Pro Lys Lys Lys Glu Asn Asn Ala Leu Leu Arg Tyr  
1 5 10 15

Leu Leu Asp Arg Asp Asp Pro Ser Asp Val Leu Ala Lys Lys Leu Gln  
20 25 30

<210> 17

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<213> Homo sapiens

<400> 17

Ala Glu Asn Gln Arg Gly Pro Leu Glu Ser Lys Gly His Lys Lys Leu

1

5

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15

Leu Gln Leu Leu Thr Cys Ser Ser Asp Asp Arg Gly His Ser Ser Leu  
20 25 30

Thr Asn

<210> 18  
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<213> Homo sapiens

<400> 18  
Thr Ser Asn Met His Gly Ser Leu Leu Gln Glu Lys His Arg Ile Leu  
1 5 10 15

His Lys Leu Leu Gln Asn Gly Asn Ser Pro Ala Glu Val Ala Lys Ile  
20 25 30

Thr Ala

<210> 19  
<211> 32  
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<213> Homo sapiens

<400> 19  
Glu Gln Leu Ser Pro Lys Lys Lys Glu Asn Asn Ala Leu Leu Arg Tyr  
1 5 10 15

Leu Leu Asp Arg Asp Asp Pro Ser Asp Ala Leu Ser Lys Glu Leu Gln  
20 25 30

<210> 20  
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<400> 20  
Ser Glu Thr Pro Arg Gly Pro Leu Glu Ser Lys Gly His Lys Lys Leu

1

5

10

15

Leu Gln Leu Leu Thr Cys Ser Ser Glu Asp Arg Gly His Ser Ser Leu  
20 25 30

Thr Asn

<210> 21  
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<400> 21  
Thr Ser Asn Val His Gly Ser Leu Leu Gln Glu Lys His Arg Ile Leu  
1 5 10 15

His Lys Leu Leu Gln Asn Gly Asn Ser Pro Ala Glu Val Ala Lys Ile  
20 25 30

Thr Ala

<210> 22  
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<400> 22  
Glu Gln Leu Ser Pro Lys Lys Lys Glu Asn Asn Ala Leu Leu Arg Tyr  
1 5 10 15

Leu Leu Asp Arg Asp Asp Pro Ser Asp Ala Leu Ser Lys Glu Leu Gln  
20 25 30

<210> 23  
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<400> 23  
Ser Glu Gly Asp Ser Lys Tyr Ser Gln Thr Ser His Lys Leu Val Gln

1

5

10

15

Leu Leu Thr Thr Ala Glu Gln Gln Leu Arg His Ala Asp Ile Asp  
20 25 30

<210> 24

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<212> PRT

<213> Homo sapiens

<400> 24

Thr Cys Pro Ser Ser His Ser Ser Leu Thr Glu Arg His Lys Ile Leu  
1 5 10 15

His Arg Leu Leu Gln Glu Gly Ser Pro Ser Asp Ile Thr Thr Leu Ser  
20 25 30

Val

<210> 25

<211> 34

<212> PRT

<213> Homo sapiens

<400> 25

Glu Leu Asp Ala Ala Lys Lys Lys Glu Ser Lys Asp His Gln Leu Leu  
1 5 10 15

Arg Tyr Leu Leu Asp Lys Asp Glu Lys Asp Leu Arg Ser Thr Pro Asn  
20 25 30

Leu Cys

<210> 26

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<213> Homo sapiens

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<223> Xaa = Any Negatively Charged Amino Acid

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<222> (26) .. (34)  
<223> Xaa = Any Amino Acid

<400> 26  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Lys Leu  
1 5 10 15

Xaa Gln Leu Leu Thr Xaa  
20 25 30

Xaa Xaa

<210> 27  
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<223> Xaa = Any Amino Acid

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<222> (32)  
<223> Xaa = Any Hydrophobic Amino Acid

<220>  
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<222> (33)..(34)  
<223> Xaa = Any Amino Acid

<400> 27  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Xaa Glu Xaa His Xaa Ile Leu  
1 5 10 15

His Xaa Leu Leu Gln Xaa Xaa Xaa Ser Pro Xaa Xaa Xaa Xaa Xaa  
20 25 30

Xaa Xaa

<210> 28  
<211> 34  
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<223> Xaa = Any Amino Acid

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<222> (10)..(14)  
<223> Xaa = Any Amino Acid

<220>  
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<222> (22)  
<223> Xaa = Any Positively Charged Amino Acid

<220>  
<221> SITE  
<222> (24)  
<223> Xaa = Any Negatively Charged Amino Acid

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<220>  
<221> SITE  
<222> (33)  
<223> Xaa = Any Hydrophobic Amino Acid

<220>  
<221> SITE  
<222> (34)  
<223> Xaa = Any Amino Acid

<400> 28  
Glu Xaa Xaa Xaa Xaa Lys Lys Lys Glu Xaa Xaa Xaa Xaa Xaa Leu Leu  
1 5 10 15  
  
Arg Tyr Leu Leu Asp Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
20 25 30  
  
Xaa Xaa

<210> 29  
<211> 18  
<212> PRT  
<213> Homo sapiens

<400> 29  
Thr Ser Leu Lys Glu Lys His Lys Leu Leu Arg Tyr Leu Leu Gln Asp  
1 5 10 15

Ser Ser

<210> 30  
<211> 33  
<212> PRT

<213> Homo sapiens

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<222> (5)

<223> Thr --> Arg (T281R)

<220>

<221> MUTAGEN

<222> (8)

<223> Val --> Arg (V284R)

<220>

<221> MUTAGEN

<222> (9)

<223> Asp --> Ala (D285A)

<220>

<221> MUTAGEN

<222> (12)

<223> Lys --> Ala (K288A)

<220>

<221> MUTAGEN

<222> (22)

<223> Cys --> Arg (C298R)

<220>

<221> MUTAGEN

<222> (26)

<223> Ile --> Arg (I302R)

<220>

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<222> (30)

<223> Lys --> Ala (K306A)

<400> 30

Thr Pro Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met  
1 5 10 15

Phe Cys Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys  
20 25 30

Cys

<210> 31  
<211> 12  
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<223> Leu --> Arg (L454R)

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<223> Leu --> Arg (L456R)

<220>  
<221> MUTAGEN  
<222> (8)  
<223> Glu --> Lys (E457K)

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Leu Phe Pro Pro Leu Phe Leu Glu Val Phe Glu Asp  
1 5 10

<210> 32  
<211> 33  
<212> PRT  
<213> Homo sapiens

<400> 32  
Thr Pro Ala Ile Thr Arg Val Val Asp Phe Ala Lys Lys Leu Pro Met  
1 5 10 15

Phe Ser Glu Leu Pro Cys Glu Asp Gln Ile Ile Leu Leu Lys Gly Cys  
20 25 30

Cys

<210> 33  
<211> 12  
<212> PRT  
<213> Homo sapiens

<400> 33  
Leu Phe Pro Pro Leu Phe Leu Glu Val Phe Glu Asp

1

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<210> 34

<211> 33

<212> PRT

<213> Homo sapiens

<400> 34

Thr Lys Cys Ile Ile Lys Ile Val Glu Phe Ala Lys Arg Leu Pro Gly  
1 5 10 15

Phe Thr Gly Leu Ser Ile Ala Asp Gln Ile Thr Leu Leu Lys Ala Ala  
20 25 30

Cys

<210> 35

<211> 12

<212> PRT

<213> Homo sapiens

<400> 35

Leu Phe Pro Pro Leu Phe Leu Glu Val Phe Glu Asp  
1 5 10

<210> 36

<211> 33

<212> PRT

<213> Homo sapiens

<400> 36

Asp Lys Gln Leu Phe Thr Leu Val Glu Trp Ala Lys Arg Ile Pro His  
1 5 10 15

Phe Ser Glu Leu Pro Leu Asp Asp Gln Val Ile Leu Leu Lys Ala Gly  
20 25 30

Trp

<210> 37

<211> 12

<212> PRT

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<400> 37

Pro Ile Asp Thr Phe Leu Met Glu Met Leu Glu Ala  
1 5 10

<210> 38

<211> 33

<212> PRT

<213> Homo sapiens

<400> 38

Val Glu Ala Val Gln Glu Ile Thr Glu Tyr Ala Lys Asn Ile Pro Gly  
1 5 10 15

Phe Ile Asn Leu Asp Leu Asn Asp Gln Val Thr Leu Leu Lys Tyr Gly  
20 25 30

Val

<210> 39

<211> 12

<212> PRT

<213> Homo sapiens

<400> 39

Ser Leu His Pro Leu Leu Gln Glu Ile Tyr Lys Asp  
1 5 10

<210> 40

<211> 33

<212> PRT

<213> Homo sapiens

<400> 40

Ser Tyr Ser Ile Gln Lys Val Ile Gly Phe Ala Lys Met Ile Pro Gly  
1 5 10 15

Phe Arg Asp Leu Thr Ser Glu Asp Gln Ile Val Leu Leu Lys Ser Ser  
20 25 30

Ala

<210> 41  
<211> 12  
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<400> 41  
Lys Leu Thr Pro Leu Val Leu Glu Val Phe Gly Asn  
1 5 10

<210> 42  
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<222> (12)  
<223> Lys --> Ala (K362A)

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<222> (26)  
<223> Val --> Arg (V376R)

<400> 42  
Asp Arg Glu Leu Val His Met Ile Asn Trp Ala Lys Arg Val Pro Gly  
1 5 10 15

Phe Val Asp Leu Thr Leu His Asp Gln Val His Leu Leu Glu Cys Ala  
20 25 30

Trp

<210> 43  
<211> 12  
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<221> MUTAGEN  
<222> (8)  
<223> Glu --> Lys (E542K)

<400> 43

Pro Leu Tyr Asp Leu Leu Leu Glu Met Leu Asp Ala  
1 5 10

<210> 44  
<211> 33  
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<400> 44  
Gly Arg Gln Val Ile Ala Ala Val Lys Trp Ala Lys Ala Ile Pro Gly  
1 5 10 15

Phe Arg Asn Leu His Leu Asp Asp Gln Met Thr Leu Leu Gln Tyr Ser  
20 25 30

Trp

<210> 45  
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<400> 45  
Glu Phe Pro Glu Met Leu Ala Glu Ile Ile Thr Asn  
1 5 10

<210> 46  
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<400> 46  
Glu Arg Gln Leu Leu Ser Val Val Lys Trp Ser Lys Ser Leu Pro Gly  
1 5 10 15

Phe Arg Asn Leu His Ile Asp Asp Gln Ile Thr Leu Ile Gln Tyr Ser  
20 25 30

Trp

<210> 47  
<211> 12

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<213> Homo sapiens

<400> 47

Glu Phe Pro Glu Met Met Ser Glu Val Ile Ala Ala

1

5

10

<210> 48

<211> 33

<212> PRT

<213> Homo sapiens

<400> 48

Gly Lys Gln Met Ile Gln Val Val Lys Trp Ala Lys Val Leu Pro Gly

1

5

10

15

Phe Lys Asn Leu Pro Leu Glu Asp Gln Ile Thr Leu Ile Gln Tyr Ser

20

25

30

Trp

<210> 49

<211> 12

<212> PRT

<213> Homo sapiens

<400> 49

Glu Phe Pro Ala Met Leu Val Glu Ile Ile Ser Asp

1

5

10

<210> 50

<211> 33

<212> PRT

<213> Homo sapiens

<400> 50

Glu Arg Gln Leu Val His Val Val Lys Trp Ala Lys Ala Leu Pro Gly

1

5

10

15

Phe Arg Asn Leu His Val Asp Asp Gln Met Ala Val Ile Gln Tyr Ser

20

25

30

Trp

<210> 51  
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<213> Homo sapiens

<400> 51  
Asp Phe Pro Glu Met Met Ala Glu Ile Ile Ser Val  
1 5 10